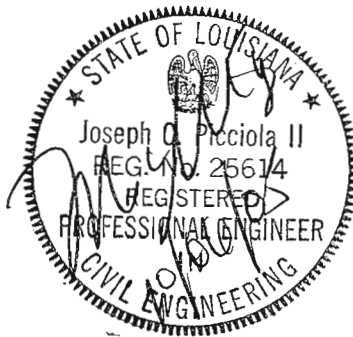


DNR Contract No. 2503-03-18  
Surveying and Engineering Services

Point Au Fer Island – Breach Repairs, (TE – 22)  
Terrebonne Parish, LA

FINAL REPORT



Picciola & Associates, Inc.  
Consulting Engineers & Land Surveyors  
P.O. Box 687  
Cut Off, LA 70345

September 2005

1. Project Managers/Contracting Officers:

Federal Agency:	NMFS		
Project Manager:	Cheryl Brodnax	Phone:	(225) 578-7923
State Agency:	Louisiana Department of Natural Resources		
Construction Manager:	Daniel Dearmond	Phone:	(985) 449-5103
Project Representative:	Picciola & Associates, Inc.		
Project Manager:	Joe Picciola	Phone:	(985) 632-5786
Project Rep.:	Ray Leblanc	Phone:	(985) 632-5786
Land Owner:	Point Au Fer, L.L.C.		
Land Manager:	Allan Ensminger	Phone:	(337) 462-0762
Contractor:	Luhr Bros., Inc.		
Project Manager:	Lonnie Dunn	Phone:	(318) 489-9263

2. Location and description of projects as approved for construction:

The Pointe Au Fer Breach Repair Project is located on the Point Au Fer Island, in the vicinity of Lake Chapeau, approximately 30 miles south of Morgan City, Louisiana. The project is bounded by Four League bay to the north, Atchafalaya Bay to the West, Locust Bayou and a network of canals to the south, and Wildcat Bayou to the east. The principle project featured included the of two (2) rock plug structures across existing oil field canals at the Gulf of Mexico, one (1) rock weir structure and one (1) bulkhead plug.

This Project consists of adding 250# class rock rip rap to the existing rock dykes at Mobil Canal and Transco Canal. These dykes were originally placed to prevent beach erosion and subsequent breaches into the aforementioned canals from the Gulf of Mexico. Both rock dykes were extended laterally from the existing dykes over the beach area and into the marsh. Also, at

Hester Canal, the bulkhead at Plug #8 was breached on the south marsh side. This breach was closed by extending the bulkhead into the marsh area on the south side. Articulated Mats on Geotextile Fabric were placed on the south side of the bulkhead in the marsh to prevent future wash around. Added to the project was the closure of the breach at Weir #3. This was accomplished by adding approximately 50 linear foot of rock rip rap to the south side of the weir. Articulated Mats on Geotextile Fabric were also placed at this site on the south side of the bulkhead in the marsh to prevent future wash around.

### 3. Final, As-Built features.

The Final Project features followed exactly as planned.

The amount of 250# Class Rip-Rap quantity varied slightly from the planned quantity and is noted in the inspection reports and included in this report.

### 4. Key Project Cost Elements

	Work Order Estimate	Actual Cost
Construction	\$240,765	\$391,382
Engineering and Design	\$29,947	\$29,633
Bidding	\$1,172	\$2,040
Construction Administration	\$10,898	\$7,009.50
Construction Oversight	\$24,550	\$10,575
Project Totals:	\$307,332	\$439,559.50*

\*Note: Amount does not include LDNR Administrative Costs.

5. Items of Work:

<u>Item No.</u>	<u>Item of Work</u>	<u>Bid Quantity</u>	<u>Unit</u>	<u>Bid Unit Price</u>	<u>Bid Amount</u>	<u>Final Quantity</u>	<u>Final Amount</u>
1	Mobilization & Demobilization	1	LS	<u>\$54,875.00</u>	<u>\$54,875.00</u>	1	<u>\$54,875.00</u>
2	Rip Rap (250# Class)	3,450	Ton	<u>\$78.00</u>	<u>\$269,100.00</u>	3,336	<u>\$260,208.00</u>
3	Rip Rap (55# Class)	0	Ton	<u>\$0.00</u>	<u>\$0.00</u>	0	<u>\$0.00</u>
4	Geotextile Fabric	2,690	SY	<u>\$6.00</u>	<u>\$16,140.00</u>	2,690	<u>\$16,140.00</u>
5	Timber Piles (2.5 CCA Treated - 40' Long)	440	LF	<u>\$35.00</u>	<u>\$15,400.00</u>	440	<u>\$15,400.00</u>
6	Piling Caps (Galvanized)	7	Each	<u>\$30.00</u>	<u>\$210.00</u>	7	<u>\$210.00</u>
7	Vinyl Sheet Pile	61	LF	<u>\$250.00</u>	<u>\$15,250.00</u>	61	<u>\$15,250.00</u>
8	2 x 8 Timber Waler (0.8 CCA Treated)	122	LF	<u>\$30.00</u>	<u>\$3,660.00</u>	122	<u>\$3,660.00</u>

9	2 x 8 Timber Waler (2.5 CCA Treated)	122	LF	<u>\$32.00</u>	<u>\$3,904.00</u>	122	<u>\$3,904.00</u>
10	2 x 12 Timber Cap (0.8 CCA Treated)	61	LF	<u>\$35.00</u>	<u>\$2,135.00</u>	61	<u>\$2,135.00</u>
11	Galvanized Hardware For Vinyl Bulhead	1	LS	<u>\$1,400.00</u>	<u>\$1,400.00</u>	1	<u>\$1,400.00</u>
12	Articulated Mat (Submar 20' x 8' x 4.5" Thick)	7	Each	<u>\$2,600.00</u>	<u>\$18,200.00</u>	7	<u>\$18,200.00</u>
<b>Base Bid/Final Contract Totals (Items 1 thru 12)</b>					<b><u>\$400,274.00</u></b>		<b><u>\$391,382.00</u></b>

6. Construction and construction oversight:

**ITEM**

Prime Construction Contractor	Luhr Bros., Inc.
Subcontractor	Dupre Bros. Construction, Inc.
Original Construction Contract	\$400,274.00
Change Orders	\$0.00
Over/Under Runs	(\$8,892.00)
Damages	\$0.00
Construction Admin./Oversight (Picciola & Associates, Inc.)	\$17,584.50
Total Construction Contract Cost:	\$408,966.50

7. Major Equipment:

Luhr Bros., Inc.

SL Barge – L1029

Spud Barge – L985

Office Barge – L1031

Rock Barge – L1080, BV1091, L1083

Material Barge – L1641

1 – Tug Boat – M/V Billy Gene

1 – Crew Boat – M/V Houston

1 – Tender Boat – M/V Mary B

1 – Excavator – 385 Caterpillar

1 – Excavator – 330 Caterpillar

1 – Excavator – 325 Caterpillar

1 – Loader – 973 Track Loader

Dupre Brothers Construction, Inc.

Spud Barge – Little David with Crane LS 128

1 – Tug Boat – M/V Kent

Deck Barge – Paint Barge

20 ft. Aluminum Outboard

8. Discuss construction sequences and activities, problems encountered, solutions to problems, etc.

- a) Luhr Bros., Inc. mobilized in first for this project with the rock rip rap.
- b) They first mobilized into the Atachafalaya River and light loaded the rock barges. It was at this site that the barges were measured for quantity of rock tonnage.
- c) Once mobilized to Weir #3, they established alignment for the extension of the rock weir.
- d) They then placed geotextile fabric along the proposed alignment and pinned it down.
- e) Rock rip rap was then placed over the geotextile fabric as depicted on the plans.

- f) The contractor then mobilized to Mobil Canal.
- g) The procedure for placing rock was the same as was conducted for Weir #3.
- h) The contractor then mobilized to Transco Canal.
- i) The procedure for placing rock was the same as was conducted for Weir #3 and Mobile Canal.
- j) Luhr Bros., Inc. subcontracted Dupre Brothers Construction, Inc. to construct the vinyl sheet pile bulkhead extension at Plug #8 and place the Articulated Mats at Plug #8 and Weir #3.
- k) Dupre Brothers Construction, Inc. first mobilized to Plug #8 for construction of the vinyl bulkhead.
- l) The Timber Vertical Piles were driven to grade.
- m) Then the Timber Batter Piles were driven to grade and bolted to the Vertical Piles.
- n) The timber walers nearest the piles were placed for bulkhead alignment.
- o) Then the Vinyl Bulkhead was driven.
- p) Then the exterior board of the top and bottom timber walers were placed and then bolted together.
- q) Then the timber cap was installed and nailed to the top walers.
- r) The contractor then placed geotextile fabric along the proposed alignment of the Articulated Mats and pinned it down.
- s) The contractor then placed the Articulated Mats over the geotextile fabric.
- t) Dupre Brothers Construction, Inc. then mobilized to Weir #3 for placement of Articulated Mats.
- u) The procedure for placing the Articulated Mats was the same as was conducted for Plug #8.

9. Construction Change Orders and Field Changes:

Not Applicable.

10. Pipeline and other utility crossings.

Not Applicable.

11. Safety and Accidents:

Excellent Safety Record with no Accidents Reported.

12. Additional Comments pertaining to construction, completed project, etc.

All aspects of the project went as planned. The Contractor should be commended for his diligence and quality of work.

Aspects of the project that should be noted concern the shallow water accessibility the project. This caused a lot of extra handling of the rock rip rap and made the unit cost of the rock rip rap high.

One other aspect of the project to be noted is the proximity of the work to oyster leases. This made the contractor take extra care when transiting to and from the different sites. Also, the oyster leasee's required payment of some type just for transiting the equipment in and around the oyster leases. This added a significant amount of cost to the project.

13. Significant Construction Dates:

Construction Contract Award	07/12/05
Pre-construction Conference	07/27/05
Notice to Proceed	07/27/05
Mobilization	08/01/05
Construction Start	08/02/05
Construction Completion	08/25/05
Final Acceptance	09/09/05

## P&A Daily Reports

## Contractor Record Drawings

## Project Pictures